

CLAIMS

1. A method of monitoring the progress of labor during childbirth, the method comprising:
touching a position sensor to a point on the fetal presenting part and
5 capturing the position of the position sensor;
touching the position sensor to a set of points on the mother and capturing
the position of the position sensor at each point; and
monitoring the position of the point on the fetal presenting part with respect
to at least one point from the set of points on the mother.
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2. The method of claim 1 comprising monitoring the orientation of the point on the fetal presenting part with respect to at least one point from the set of points on the mother.
- 15 3. The method of claim 1 comprising capturing the position of the position sensor at a set of points on the fetus and the mother.
4. The method of claim 1 comprising affixing a matching probe to one or more points on the fetal presenting part, the matching probe including a key part matching a key
20 part on the position sensor.
5. The method of claim 1, where the matching probe key part includes a shape matching the position sensor key part.
- 25 6. The method of claim 1 comprising initiating the capturing by accepting a user indication.
7. The method of claim 1 wherein the user indication is one of a mouse click or a foot press on a switch.

8. The method of claim 1 comprising computing the distance between at least two points measured on the mother.
- 5 9. The method of claim 1 comprising computing the distance between at least one point measured on the fetal presenting part and at least one point measured on the mother.
- 10 10. The method of claim 1 comprising monitoring the location of the point on the fetal presenting part with respect to the set of points on the mother.
- 11 11. The method of claim 1 comprising computing an indication of the progress of labor.
- 12 12. The method of claim 1 comprising providing an indication of the progress of labor.
- 15 13. The method of claim 1 wherein each position is a position in three-dimensional space relative to a reference.
- 14 14. The method of claim 1 wherein the position sensor is mounted on a user's finger.
- 20 15. The method of claim 1, wherein the position sensor is a magnetic field type sensor.
- 16 16. The method of claim 1, wherein the position sensor is an ultrasonic type sensor.
- 17 17. The method according to claim 1, wherein the set of points on the mother include points on the uterine cervix, the method further comprising monitoring the location of the opposite sides of the end of the uterine cervix with reference to each other.
- 25 18. The method according to claim 1, comprising providing an indication of the dilatation of the cervix.
- 19 19. The method according to claim 1, comprising providing an indication of the cervical position of the mother.
- 30 20. The method according to claim 1, comprising providing a Partogram showing the interrelation of the cervical dilation and the descent of the fetal presenting part.

21. The method according to claim 1, comprising indicating effacement of the mother's cervix.
22. The method according to claim 1, comprising indicating the position of the mother's cervix.
- 5 23. The method according to claim 1, comprising monitoring contractions in the mother's uterine cervix by monitoring the captured positions.
24. The method according to claim 1, comprising providing a cap on the fetus including at least one matching probe.
25. Apparatus for monitoring the progress of labor, the apparatus comprising;
10 a fetal key capable of being attached to a point on the fetus;
 a position sensor including a position key matching the shape on the fetal key; and
 a monitor capable of sensing the position of the position sensor.
26. The apparatus according to claim 25, wherein the monitor is capable of outputting
15 an indication of the dilatation of the mother's cervix.
27. The apparatus of claim 25, wherein the monitor is capable of sensing the orientation of the position sensor
28. The apparatus according to claim 25, wherein the monitor is capable of outputting an indication of the cervical position of the mother.
- 20 29. The apparatus according to claim 25, wherein the monitor is capable of outputting an indication of the location of said second position sensor.
30. The apparatus according to claim 25, wherein the monitor is capable of outputting an indication of the station of the fetal presenting part.
31. The apparatus according to claim 25, wherein the monitor is capable of sensing the
25 position of the position sensor at a plurality of positions, and computing therefrom a position and orientation of a portion of the fetus relative to a portion of the mother.
32. The apparatus according to claim 25, wherein the monitor is capable of sensing the position of the position sensor at a plurality of positions, and computing therefrom a characteristic of the cervix.

33. The apparatus according to claim 25, wherein the monitor is capable of outputting a Partogram.
34. The apparatus of claim 25, wherein the position sensor is a magnetic field type sensor.
- 5 35. The apparatus of claim 25, wherein the position sensor is an ultrasonic type sensor.
36. The apparatus of claim 25 comprising a cap on which is mounted the fetal key.
37. Apparatus for monitoring the progress of labor, comprising;
- a fetal key means for attachment to a point on the fetus and for providing a position and an orientation for a position sensor;
- 10 a position sensor means for providing a position, including a position key means for connecting to the fetal key; and
- a monitor means for sensing the position of the position sensor.
38. A method of monitoring the progress of labor, the method comprising:
- touching a position sensor to a key mounted on the fetal presenting part and
- 15 capturing the position and orientation of the position sensor;
- touching the position sensor to a set of points on the mother and capturing the position and orientation of the position sensor at each point; and
- calculating the relative position of the fetus and mother.
- 20 39. A method of monitoring the progress of labor, the method comprising:
- touching a position sensor to a key mounted on the fetal presenting part and capturing position data from the position sensor;
- touching the position sensor to a set of points on the mother and capturing position data from the position sensor; and
- 25 calculating a status of the progress of labor or of the fetus or mother based on the position data.